

# Outdoor Education: Essential education for Australia's future

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## **ABSTRACT**

At a recent College Awards night most prizes were received by girls. The situation is too familiar. Boys are failing in education. They are alienated from the educational process and this impacts on lifestyle choices and opportunity as they enter adulthood. At the same time, rapid advances in knowledge of climate change has given impetus to the need for ecological and social sustainability and this has been reflected in an array of policy initiatives at an international, national and local level. The circumstances of boys and the need for social and ecological sustainability are intricately linked and this paper explores that nexus, as it is revealed, in the delivery of Outdoor Education in Australia.

## **Introduction**

Two major issues have emerged in more developed economies in recent years. The first issue is that of social and ecological sustainability and the second relates to the relative failure of boys in education with a resultant diminution in lifestyle skills and success. In this paper, we examine the legislative background to the advancement of both issues in Australia. We show how this process emerged from global awareness of these critical issues in the first few years of this century. We then show how this has emerged as policy in education with particular relevance to the teaching of Outdoor Education. We illustrate this with reference to the experience of one school in an inner city suburb of Perth, Western Australia. We note however, that knowledge of the efficacy of Outdoor Education as a response to social and ecological sustainability in educational settings seems limited and that this provides a particular challenge for professional development in schools and for the marketing of Outdoor Education.

## **Outdoor Education**

The concept of education 'out of doors' acknowledges the importance of selecting an appropriate place for education as well as a technique or means of education. In this 'place' students learn directly about the relationship of knowledge to the physical reality of that place through biochemical, social and cultural dimensions where that which is known has a past, present and future. Thus students learn about the key importance of relationships and respect for learning and teaching (Higgins & Nicol, 2002).

Magnussen (2006) states that 'Outdoor education is a method of learning with the use of all senses. It takes place out-of-doors in a natural environment or other outdoor learning environments with the use of all spaces. It is an ideal complement to the classroom and other traditional teaching methods' (p.11).

Often confused with Physical Education, which is the care and development of the human body, stressing athletics and including hygiene (Stedman's Medical Dictionary, 2004), Outdoor Education (ODE) is an adventure based, holistic approach to education requiring the meta-skills of decision making, problem solving, personal development and leadership.

ODE is developing into a mainstream area of study. It develops knowledge of, and engagement with, notions of a sustainable future. It develops essential life and work skills leading to equity across diverse cultural groups of students. It provides a vitally important point of educational engagement for adolescent boys.

Recent awareness of the impact of climate change has invigorated Australian policy formation towards a socially and ecologically sustainable future (Environment Australia, 2000). Education increasingly reflects these policies and concerns. In addition, in Australia women significantly outnumber men in university undergraduate courses and in the teaching profession (Maslen, 2003), and there is a developing trend in boys away from formal education and the opportunities this offers (House of Representatives, 2000).

We use Aranmore Catholic College (Aranmore) in Perth Western Australia as a case study. Aranmore is a co-educational secondary school situated on a small inner city campus without sporting fields or gymnasia. The College comprises 620 students with high numbers of indigenous, refugee and migrant students.

Aranmore runs elite sporting programmes for netball and rugby union for Years 8-12 and an ODE program for Years 10-12. The ODE program, which has been running successfully for 16 years, has been developed and refined through consultation and coordination with peak bodies including the Royal Life Saving Society, Spirit Paddle Sports, Canoeing Western Australia Inc, Department of Youth, Sport and Recreation, City Farm and the Department of Conservation and Land Management.

Aranmore is the only WA school offering successful state body endorsed Physical Education Studies Netball and Rugby programmes at the highest level for over 150 sports students and incorporates a performance based promotion or relegation process to provide a percentage of 'full time equivalents' for fee subsidies.

### **Outdoor Education for a sustainable future**

In 2002, the United Nations General Assembly adopted a resolution (57/254) on the United Nations Decade of Education for Sustainable Development (DESD) from 2005-2014. The goal of the DESD is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning. This educational effort will encourage changes in behaviour to create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations.

The Australian government stated its intent to develop education for sustainable development through the "National Action Plan for Environmental Education". (Environment Australia 2000) and supported by an Education for Sustainable Development Grants Programme

Queensland has, for the last 30 years, developed this theme through the "Outdoor and Environmental Education Centres of Queensland. The core principles of the DSED as articulated through the Queensland example are 'to integrate sustainability into education at all levels and across all sectors in order to transform and enhance societal capacity for sustainability' (MACER, 2006, p.4).

In the Australian context, the expectation is that the decade will achieve tangible improvements in three areas:

1. The conservation of Australia's natural resources , biodiversity and ecosystem health
2. The vitality and prosperity of Australia's business and industry while respecting the capacity of natural systems
3. Active participation of Australians of all ages for harmony within Australia's social and cultural diversity. (MACER, 2006, p.4)

These initiatives impact directly on the appropriate development and outcomes of Outdoor Education for graduates. There are three specific areas of benefit:

1. ODE is now accredited for university entrance as a subject providing pathways to tourism, geology mining exploration and environmental sciences.
2. ODE increases the awareness of the impact of climate change. It drives the need for suitably qualified graduates in business and industry with awareness of the relevant sustainability issues. It develops broad understandings of the environment and sustainability for all students.
3. OBE provides an environment and a focus for unity in action for all Australians in determining a sustainable future. OBE provides opportunities for effective educational processes targeting issues of personal and lifetime sustainable health and fitness.

Recent Australian Government reports (Department of Health and Ageing, 2004) indicate that Australians are inactive. The WA Premier's Physical Activity Taskforce has highlighted glaring health, activity and lifestyle issues in our adolescent population leading to chronic economic, health and social problems in the near future. Declining levels of health and well-being correlate with poor outcomes across a range of health outcomes such as coronary heart disease, Type 2 Diabetes, stroke, osteoporosis and some cancers, along with disease risk factors such as high cholesterol, hypertension and obesity (WA Premier's Physical Activity Taskforce 2001).

The reasons for the decline are complex but relate to a combination of 'community understanding and priority; changes in urban environments and lifestyle; and rapid societal and technological changes' (WA Premier's Physical Activity Taskforce, 2001, p.9). ODE directly and effectively addresses these factors at the most formative educational age for the development of lifetime interests and habits.

### **ODE as a tertiary entry subject**

ODE is a recent addition to the tertiary entrance suite of courses of study and one of the challenges is affording continuity to ODE and giving it a dedicated place on subject selection grids throughout Years 10-12. For example, at Aranmore, most boys who choose PES/Rugby as an alternative to traditional subjects pair it with ODE, which engages them intellectually in their physical world. Where grids allow, those interested in PES and ODE who are TEE students select biology or physics, chemistry and applicable maths.

The four ODE outcomes are defined in terms of progressive levels of achievement:

1. Understanding the principles of Outdoor Education
2. Skills for safe participation in outdoor activities
3. Understanding of the environment
4. Self-management and interpersonal skills in outdoor activities

Table 1: The Outdoor Education Program's suggested activities indicate a progression through challenges, nodes of travel and a steady progression from simple to complex.

<b>OUTDOOR ACTIVITY</b>	<b>1A Experiencing the outdoors</b>	<b>1B Challenges in the outdoors</b>	<b>2A Being responsible in the Outdoors</b>	<b>2B Attaining independence in the outdoors</b>	<b>3A Outdoor Program Development</b>	<b>3B Managing Outdoor Experiences</b>
<b>Abseiling</b>		artificial / natural nursery slopes	natural slopes – 50/60m slopes	natural slopes – 50/60m slopes constructing anchors, prusiking	natural slopes, self rescues, hauling systems, ladders, belay systems	assistant instructor (under supervision)
<b>Climbing</b>		indoor, introductory	indoor, intermediate level grades	natural surfaces – easy grades	natural surfaces – high grades	assistant instructor (under supervision)
<b>Bushwalking</b>	on track, easy terrain, short distance	on and off track, easy terrain, short distance	on and off track, easy terrain, long distance	on and off track, difficult terrain, short – long distance	on and off track, remote, long distance, , solo	leader (under supervision)
<b>Caving</b>	guided tourist caves	self guided walk through	self guided – abseil entry	self guided – abseil entry	self guided – abseil entry	leader (under supervision)
<b>Orienteering</b>	familiar area within neighbourhood	large, unfamiliar area, open terrain	large / unfamiliar area, on tracks	unfamiliar area, on and off track	state school level competition – OAWA	assistant instructor (under supervision)
<b>Paddling</b>	still, flat water	slow moving, flat / sheltered water	slow moving, low grade rapids / small swell, short distances	fast moving, medium grade rapids,/small swell extended distances	fast moving, medium grade rapids,/small swell extended distances, remote	leader (under supervision)
<b>Ropes course</b>	low elements	low elements	high elements	high elements	construction of low elements	facilitator (under supervision)
<b>Surfing</b>	beginner, small swell	beginner to advanced, small to medium swell				

(Source: ARM ODE planning document, 2007)

Table 1 shows the progression of the course from Year 10 to Year 12. There are four stated outcomes of outdoor experiences from a foundation stage to a facilitation stage. Opportunities are clearly developed and built on to extend knowledge and understanding in increasingly challenging and academically complex ways. The course is presented across 3 stages with 6 units and 4 outcomes. There are 3 aspects under Outcomes 1-3 and 4 aspects under Outcome 4. While Outcomes 1 and 3 are to do with aspects of understanding and Outcomes 2 and 4 are to do with developing skills, the primary outcome is number 1 from which the rationale, context and content of the entire course are derived.

To offer the upper stages (2A – 3B), a steady scope and sequence for the program is required with ODE feeder classes 1A and 1B completed in Year 10, and the course continued through Year 11. Entry into ODE in Year 12 without the two years of prior preparation will result in significant under-preparation. Due to large individual and cultural differences at Aranmore, it is even more important to implement the course over three years so that students develop confidence in themselves and their own abilities in small increments along their learning pathway.

When Aranmore's Year 10 students were surveyed in 2007 about why they didn't choose ODE as a subject some stated that they were simply not interested in ODE. However the majority were interested and enthusiastic. If unable to select it they gave reasons, including:

- ODE is 'running against' compatible courses as it is placed on the grid.
- TEE bound students are only able to choose 5 TEE subjects.
- The time involved in ODE conflicts with outside commitments (work, state sport selection, travel)
- Significant travel between school and home makes commitments to early morning or after school programmes difficult.
- Lack of knowledge about the subject

If ODE is available for Years 10-12 students then, typically, numbers in the course build. At Aranmore some Year 11 students relocate to non tertiary entrance subjects early in the year and thus treble numbers in PES and double those in ODE. However, ODE is expensive and combined Year 11 and Year 12 classes will operate from 2008, as will all COS, with courses referred to in terms of 'stages' rather than 'years'.

For ODE this presents pedagogical inequities by ignoring the essential sequential aspects of the learning process. Increasingly, at Aranmore, girls, aboriginal students and African refugees are selecting the course, presenting additional challenges. For example most of the students from NESB have no previous exposure to camping, cooking, nutrition, swimming, environmental educational and paddling experiences and initially (Stages 1A & 1B) require extra and intensive tuition.

Best practice in ODE carefully aligns the syllabus content and assessment contexts with its original intent and strongly recommends expedition durations

and tasks. The gradual increase in challenges developed through the curriculum culminates in the Year 12 expedition which is a unique, fulfilling conclusion to the ODE course. At Aranmore, this final Year 12 activity is an expedition in the Murchison Gorge, 500 km north of Perth. This expedition combines extensive planning, self-sufficiency, in-depth food preparation, first aid and emergency planning and training.

Following this expedition in 2006, students (N=15), parents (N=14) and expedition leaders (N=8) completed qualitative and quantitative surveys regarding the ODE course. All three groups overwhelmingly support this 'Peak' expedition, describing it as the essential culmination of ODE, emphasizing the importance of skills and outcomes exhibited and arguing for its value in student learning and development and its relevance to particular demands of the WA economy.

The Aranmore ODE programme is well received by parents and students as well as relevant practitioners and authorities. The Programme is rigorously structured around integrated outcomes and suitable assessment tasks. Student, staff and parent responses are invariably enthusiastic. For example:

*As well as the obvious outcomes covered by the expeditions of the Year 12 outdoor education course my daughter gained a higher level of knowledge and understanding of the psychology of her peers. This had a deep effect on her ability to empathise which has developed her maturity at his critical stage of development. She would not have had this opportunity for growth if she had not gone to Kalbarri. (Parent).*

*The Kalbarri expedition is an experience I will never forget for many reasons. I learned so many things about myself and my peers as well as reaching a goal of finishing a physically challenging journey. (Student).*

*I was privileged enough to have been involved in this camp...during my ATP experience in the third term of 2005. Although the primary activity of this camp is hiking, it offers so much more with respect to growth and maturity of the students... to be self sufficient... and accountability for their actions. ... for students to work together to navigate, make decisions, and overstep their emotional and physical boundaries... and it prepares them for their life outside the college. (Student Teacher)*

*I believe the Outdoor Education Camps teach you skills for life and I have heard the Kalbarri Camp is the best experience of them all. (Parent).*

*The kids deserve the option and all the opportunities for the development it brings. (Parent).*



## **ODE for a multicultural society**

Dr Allan Luke, Foundation Dean of The Centre for Research in Pedagogy and Practice at Singapore's National Institute for Education stated in 2003:

...there are huge structural forces which are subjecting education systems to the most strain they've known in 60 years. At the top of the list [is] unprecedented student diversity. Differences of race, culture and class in the "new Australia" are just the start of it. (The Bulletin, 28 Oct, 2003, p.87).

Aranmore is a microcosm of a global community facing the challenges of adjusting to issues of cultural identity and ecological and social sustainability. Seventy two language groups are represented at Aranmore including Nyoongar, Yamitji, Maori, Pacific Islanders, African, East Timorese, Afghani, Iraqi and Irani. There are significant groups of aboriginal students, migrants, refugees, and many with conflicting political and religious affiliations. Financial and social problems are common and associated with a lack of privilege, disrupted education; health and family trauma, violence and cultural disharmony. Significant obstacles exist to education delivery such as language, nutrition, fitness, physical skills and interpersonal skills. Typically these students have few positive role models, are challenged academically and have little cultural understanding of their new world.

At Aranmore, many students are not prepared for class room based upper school academic subjects or ODE and aquatic environments. There is a generally low level of life skills. Between 2003 - 2006, Year 8 and Year 10 Aranmore students performed consistently lower than the State average on two ACER standardised tests (*'Decision Making'* & *'Concepts Of A Healthy Lifestyle'*). However when the 50% of students who were LOTE, NESB or ATSIC results were removed, the results of the remaining 50% of students fall within the expected State averages.

In the 2006 Year 8 ACER 'entry tests', (actually designed for Year 7) many Aranmore students scored in the lower ability levels for *'Concepts of A Healthy Lifestyle'* and *'Self Management Skills'*. In-term swimming performance was below the State average, with only 15% of students completing level 10 or above (levels 2-12 are offered). Many aboriginal and NESB students come from rudimentary starting points, with very weak or no swimming skills, no basic equipment, little basic nutritional or cooking skills and low organizational and self-management skills. Predictably, this group also shows lower performance in English, Maths, Science and Society and Environment.

Working with these groups is challenging. For example on one expedition, an African boy took a 3-day-old un-refrigerated choc milk out of his pack and drank it for breakfast. These groups of students may not present for expeditions in their first year. However, this changes as they adjust to the demands and expectations of the program. In time, they become immersed in the course to the point where they are capable of passing the course,

including first aid and resuscitation components, and acquire essential life skills.

Large class sizes compound existing challenges with poor life skills. At Aranmore, extra ODE leaders have been recruited to expeditions because of the varying demands and student profiles. Between 2004 and 2006 expedition leaders included 22 non-staff of the College, including professionals from Department of Youth Sport and Recreation, ex-teachers, teachers on leave, practicum students and other skilled adults to assist students in the programs who are disabled, NESB, non-swimmers or need other extra assistance.

Alan Johnson, Secretary of State for Education UK, in launching 'The Learning Outside the Classroom' Manifesto (28/11/2006), outlined what the Institute for Outdoor Learning in UK requires the Government to mandate for ongoing programs to assist an increasing group of NESB migrants for whom regular educational methods have failed. It is imperative that Australia move decisively in this direction and ODE is poised to lead this educational challenge.

### **OBE and Boys Education**

The 2006 Aranmore College Awards night provided sobering evidence of the gender imbalance in academic achievement. In Years 8-10, 50 awards went to girls and 34 to boys. The imbalance extended further by Year 12, with 42 girls and 18 boys receiving awards and twice as many non-sporting student councillors badges awarded to girls as boys. Significantly, when prizes awarded in ODE and sporting programmes are factored out, even fewer boys were recipients of awards.

Boys' schooling needs are different and they need to interact in their natural environment (Lilico, 2004; Sax, 2005). McLeod and Craig (1994) found a significant improvement in life effectiveness skills of Year 9 boys following experiential learning and outdoor education; and this group's scores were significantly higher than those of a control group not engaged in these experiences. While some of the literature suggests a gender stereotyping bias towards boys (Pinch 2002), overwhelmingly the evidence suggests that boys need to reflect and become engaged in their learning in optimal learning environments.

The educational and social indicators of boys' current academic achievement in Australia clearly demonstrate that their educational needs require attention. Boys under-perform compared with girls on all key literacy scores (DEST 2003a). Girls achieve higher averages in most Year 12 subjects and the gap has widened more recently. While boys and girls are evenly represented in the top 1-2% in Year 12, girls represent the majority of mid-level to upper performers, while boys overwhelmingly dominate in the lower levels (DEST 2003a).

Boys are less engaged with school compared with girls; they find the curriculum less useful; perceive lower teacher responsiveness and report lower levels of enjoyment of the school experience (DEST 2003a). More girls than boys complete school and progress to higher education (Lilico, 2003; Malsen, 2003). Boys suffer more disciplinary problems and school exclusion. They are more likely to be unemployed and exposed to more risk. By 15 years of age '...boys are three times more likely than girls to die from all causes combined - but especially from accidents' (DEST 2003a, p.5). Australian boys are not alone. International data show that boys are performing significantly worse than girls in reading literacy, they are more disaffected with school and are more likely to truant (DEST 2003a)

The Australian Government's report 'Boys Getting it Right' (2002) justified concerns over the state of boys' education and stated that these were not being addressed within the current policy frameworks. Further, the report recognized that some schools and teachers provided good outcomes for both boys and girls and that raising the educational achievement of boys is likely to have a positive impact on the performance of girls (House of Representatives Standing Committee on Education and Training, 2002).

The principles and strategies guiding the practice of Outdoor Education closely mirror the core principles articulated by the national Boys' Education Lighthouse Schools Programme commissioned by the Minister for Education, Science and Training in 2003, which was designed to '...address the educational needs of boys by identifying, documenting and disseminating good practices in teaching and learning in boys' education' (DEST 2003b, p.10) .

The key principles for good educational practice that emerged from this programme were:

1. Collect evidence and undertake ongoing inquiry on the issue, recognising that schools can do something about it.
2. Adopt a flexible, whole school approach with a person and team responsible.
3. Ensure good teaching for boys, and all students in all classes.
4. Be clear about the kinds of support particular boys require.
5. Cater for different learning styles preferred by boys.
6. Recognise that gender matters and stereotypes should be challenged.
7. Develop positive relationships, as they are critical to success.
8. Provide opportunities for boys to benefit from positive male role models from within and beyond the school.
9. Focus on literacy in particular.
10. Use information and communication technologies as a valuable tool (DEST 2003b, p.10).

Some schools around Australia are making efforts to address the specific relationship between Outdoor Education and the needs of boys through the use of dedicated outdoor education campuses. However, this reflects more the resources disparity between schools rather than pointing to an appropriate model for Outdoors Education delivery.

## **Conclusion**

Outdoor Education is on the cusp of great advancement. Emerging pathways to university entrance reflect the priority given to flexible inclusive learning globally, nationally and locally. Clear associations are to be seen between outdoor and environmental learning outcomes and a sustainable future for humans and the environment. At the same time, the education of boys is an emerging critical issue around which there is growing alarm. Outdoor Education demonstrably answers both these needs. It provides a good learning environment for boys whilst enhancing opportunities for girls. However, despite all the evidence to the contrary, knowledge of the efficacy of Outdoor Education within the individual school environment seems limited. Outdoor Education is also in need of more rigorous research credentials in arguing for recognition. These areas of professional development provide a real challenge for teachers and researchers in the future.

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